PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE
(Attorney Docket No. 05-434-B)

In re Application of:	)
	)
Woo Seog Koo	) Examiner: TBA
	)
International Application No.: PCT/KR2004/01856	) Group Art Unit: 2616
U.S. Application No.: 10/560,142	)
	) Confirmation No. 1170
International Filing Date: July 23, 2004	)
U.S. Filing Date: December 9, 2005	)
	)
For: Method for Establishing an ATM Traffic Channel Path Between a BSC and a BTS In An EV-DO System	)

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION UNDER 37 C.F.R. § 1.47(b) BY PERSON HAVING PROPRIETARY INTEREST TO FILE APPLICATION ON BEHALF OF INVENTOR

Dear Sir:

Pursuant to 37 C.F.R. § 1.47(b), UTStarcom, Inc., the owner of *UTStarcom Korea Limited*, and the assignee in fact of the above-identified patent application, submits this Petition and respectfully requests the U.S. Patent Office to allow UTStarcom, Inc, to make the Application on behalf of inventor Woo Seog KOO, who we have been unable to locate.

This Petition is being submitted with: (i) a Declaration and Power of Attorney signed by Robert J. Irvine, III, a person authorized by UTStarcom, Inc. to sign on its behalf; (ii) a Statement Establishing Proprietary Interest By Person Signing on Behalf of Nonsigning Inventor and Statement Under 37 C.F.R. § 3.73(b); and (iii) a Declaration in Support of Filing on Behalf of the Nonsigning Inventor.

11/07/2006 ATRAN1 00000120 10560142
01 FC:1463 200.00 OP

The last known address of nonsigning inventor Woo Seog Woo, who is a citizen of Korea, is:

Jugong Apartment 115-303
470 Anheung-dong, Icheon-si
Gyeonggi-do 467-712
Republic of Korea

UTStarcom, Inc. respectfully submits that Woo Seog KOO is unreachable to execute the Declaration for the present application. Every attempt to obtain his signature has been unsuccessful. As evidenced by the accompanying declaration of Jiwon Lim, continuous and diligent efforts have been made to obtain Woo Seog KOO's signature on the declaration for this case. Based on such diligent efforts to obtain Woo Seog KOO's signatures on the declaration for this case, we believe that the requirements of 37 C.F.R. § 1.47(b) and MPEP § 409.03 have been met.

Filing of the application without Oath or Declaration executed by Woo Seog KOO is necessary to preserve the rights of Applicant UTStarcom, Inc. Applicant UTStarcom, Inc. will suffer irreparable harm if not allowed to apply for a patent for the above-referenced Application because the United States Patent and Trademark Office will hold the present Application abandoned if it is without an executed Oath or Declaration.

This Petition is being submitted with the fee set forth in 37 C.F.R. § 1.17(g), which is currently set at $200.00.

Respectfully submitted,

Date: October 27, 2006

Robert J. Irvine, III
Registration No. 41,865
McDonnell Boehnen Hulbert & Berghoff LLP
300 South Wacker Drive, Ste. 3100
Chicago, Il 60606
Tel: 312 913 0001
Fax: 312 913 0002

PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE
(Attorney Docket No. 05-434-B)

In re Application of:	)
	)
Woo Seog KOO	) Examiner: TBA
	)
International Application No.: PCT/KR2004/001856	) Group Art Unit: 2616
U.S. Application No.: 10/560,142	)
	) Confirmation No. 1170
International Filing Date: July 23, 2004	)
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For: Method For Establishing An ATM Traffic Channel Path Between A BSC and A BTS In An EV-DO System	)

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION IN SUPPORT OF PETITION UNDER 37 C.F.R. § 1.47(b) BY PERSON HAVING PROPRIETARY INTEREST TO FILE APPLICATION ON BEHALF OF INVENTOR

Dear Sir:

This Declaration is in support of Petition under 37 C.F.R. § 1.47(b) to allow UTStarcom, Inc. to make the application on behalf of inventor Woo Seog KOO, who we have been unable to locate.

1. I, **Jiwon LIM**, am a paralegal at the law firm Kim & Chang.

2. I have first-hand knowledge of the facts recited herein.

3. This Declaration is in support of U.S. Patent Application entitled "METHOD FOR ESTABLISHING AN ATM TRAFFIC CHANNEL PATH BETWEEN A BSC AND A BTS IN AN EV-

DO SYSTEM," filed in the U.S. Patent Office on December 9, 2005 and bearing U.S. Application No. 10/560,142 and International Application No. PCT/KR2004/001856.

3. I am a paralegal at the law firm Kim & Chang, located at Hungkuk Life Insurance Building, 9F, 226 Sinmunno 1-ga, Jongno-gu, Seoul 110-786, Korea.

4. Kim & Chang represents UTStarcom Korea Limited, a subsidiary of UTStarcom, Inc.

5. I am a citizen of Korea, residing at 840-7 Mia-dong, Gangbuk-gu, Seoul 142-820, Republic of Korea.

6. On March 7, 2006, I sent a letter, via content-certified mail, including assignment documents and the Inventor's Declaration of Invention, to Mr. Woo Seog KOO's last known physical address (Jugong Apt. 115-303, 470 Anheung-dong, Icheon-si, Gyeonggi-do 467-712, Republic of Korea). (See attached Exhibit 1).

7. On March 8, 2006, I sent the same letter, with attached assignment documents, to the Mr. KOO's last-known e-mail address (wskoo@msn.com). (See attached Exhibit 2).

8. On March 8, 2006, the content-certified package mailed to Mr. KOO was returned due to an incorrect address. (See attached Exhibit 3).

9. I searched for Mr. KOO's phone number, but Korea Info Services Corporation confirmed that no number was registered under Mr. KOO's address or name.

10. I have gotten no response to the e-mail sent to Mr. KOO on March 8, 2006.

11. I hereby declare that all statements made herein are of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and

the like so made under penalty of perjury and that such willful false statements may jeopardize the validity of the specification or any patent issued thereon.

Respectfully submitted,

Date: Oct. 24, 2006

By: Jiwon Lim

Jiwon LIM
Kim & Chang
Hungkuk Life Insurance Building, 9F,
226 Sinmunno 1-ga, Jongno-gu,
Seoul 110-786, Korea

EXHIBIT 1

KIM & CHANG

Hungkuk Life Insurance Building, 9F, 226 Sinmunno 1-ga, Jongno-gu, Seoul 110-786, Korea
Telephone: (822) 764-8855 / 2122-3900 Fax: (822) 741-0328 / 745-5954 / 763-7434
E-Mail: all@ip.kimchang.com

March 7, 2006

To. Woo Seog Koo (e-mail: wskoo@msn.com)
Jugong Apt. 115-303, 470 Anheung-dong, Icheon-si, Gyeonggi-do 467-712, Republic of Korea

Re. Declaration and Power of Attorney and Assignment to be filed with U.S. Patent and Trademark Office (U.S. Serial No. 10/560,142)
K&C Ref.: GP048360

I hope your business is prospering.

I am a patent attorney for a law firm, Kim & Chang, and contacting you on behalf of my client UTStarcom Korea Limited.

You had assigned your invention as identified on the next page to your former company in 2002, which was conceived when you were working for Hyundai Electronics Industries, Co., Ltd./ Hyundai Syscomm, Inc. under the provisions of the employee's invention compensation policy of the company. Therefore, the right to receive patent for the invention was transferred to the former company. Recently, the right to receive patent was transferred to our client, UTStarcom Korea Limited, hereinafter referred to as "UTSK" from your former company. With respect to this invention, a Korean patent application was filed and its counterpart U.S. patent application has recently been filed with the U.S. Patent and Trademark Office. According to the U.S. Patent law, the inventor is only entitled to be an applicant for a patent application. Therefore, although the right to receive patent has been transferred to our client, UTSK, the U.S. Patent and Trademark Office requires filing of documents as enclosed herewith which must be signed by the inventor.

With regard to the assignment, please be informed that signing the enclosed assignment does not mean that you newly transfer something another to somebody, it merely means confirming that you had already assigned the right to receive patent in 2003. As for the Declaration, the signing the declaration means that you are declaring that you are the

true and sole inventor of this invention.

As explained above, I enclose herewith these documents. Please sign and date the marked portions and return them to us via courier, registered mail or whatever is convenient for you. Any costs to be incurred in this connection are surely responsible to our side. Please send us any receipts for payment in return.

Return Address: Hungkuk Life Insurance Building, 9F, 226 Sinmunno 1-ga, Jongno-gu, Seoul 110-786, Korea

Title of Invention: METHOD FOR ESTABLISHING AN ATM TRAFFIC CHANNEL PATH BETWEEN AN BSC AND A BTS IN AN EV-DO SYSTEM

-Contact Person: Manager Hee Jae IM / Attorney Jee Hong YOON
-Telephone: 02-2122-3822 / 02-2122-3515
-Mobile: 010-4787-7275
-E-maill: zhjim1@ip.kimchang.com

Attorney Jee Hong YOON (seal)

Enclosure(s)

GWANG WHA MOON POST OFFICE- CONTENTS CERTIFIED MAIL CERTIFICATE NO. 10042201, 2006-03-07

金 · 張 法律事務所

서울시 종로구 신문로 1가 226 흥국생명빌딩 9층 우편번호 110-786
Website: www.ip.kimchang.com E-Mail: all@ip.kimchang.com
전화: (02) 764-8855 / 2122-3900 Fax: (02) 745-5954 / 741-0328 / 763-7434

2006년 3월 7일

수 신 : 구 우 석 님
경기도 이천시 안흥동 470 주공아파트 115동 303호 (우. 467-712)
E-mail: wskoo@msn.com
제 목 : 미국 특허청 제출용 서명서류 송부의 건 (U.S. Serial No. 10/560,142)
당소 정리 번호 : GP048360

귀하의 사업에 무궁한 발전을 기원합니다.

당소는 유티스타콤 코리아 유한회사의 대리인인 김&장 특허법률사무소 입니다.

귀하께서는 2002년도에 현대전자산업 주식회사/현대시스콤 재직 중에 개발하신 아래의 발명에 대한 권리를 당시 소속회사의 직무발명 양도규정에 따라 소속회사에 양도하였으며, 현재 이 발명에 대해 특허를 받을 수 있는 권리는 귀하의 소속회사로부터 당소의 의뢰인인 유티스타콤 코리아 유한회사로 이전되어 있는 상태에 있습니다. 이 발명에 대하여는 한국 특허출원을 하고 이어서 현재 미국 특허출원을 진행 중에 있는데, 미국의 특허제도에 따르면 출원시 발명자가 출원인이 되어야 하기 때문에 미국 특허청은 특허를 받을 수 있는 권리가 당소의 의뢰인에게 있다 하더라도 첨부된 바와 같은 서류에 출원인으로서 발명자가 직접 서명한 후 이를 제출하도록 요구하고 있습니다.

첨부된 서류 중 양도증(assignment)과 관련해서는, 귀하께서 이미 이 발명에 대한 권리를 양도한 상태이기 때문에 첨부된 양도증은 이를 확인하는 절차에 불과하며 새로이 무언가를 양도하는 것은 아님을 알려드립니다. 발명자 선언서(declaration)는 귀하께서 이 발명의 발명자임을 선서하는 내용으로 되어 있습니다.

이와 같은 사정으로 첨부 서류를 보내드리오니 서명 후 당소로 반송하여 주시기를 부탁드립니다. 반송은 퀵서비스(착불) 등 귀하께서 편한 방법으로 아래의 당소 주소로 해 주시고 어떤 경우에든 당소에서 비용을 부담할 것이오니 비용 영수증 등도 함께 반송하여 주시면 감사하겠습니다.

반송 주소: 서울시 종로구 신문로 1가 226 홍국생명빌딩 9층 김.장특허법률사무소
(우편번호 110-786)

발명의 명칭: METHOD FOR ESTABLISHING AN ATM TRAFFIC CHANNEL PATH BETWEEN AN BSC AND A BTS IN AN EV-DO SYSTEM

-담당자: 임 희 재 차장/ 윤 지 홍 변리사
-전화: 02-2122-3822 / 02-2122-3515
-Mobile: 010-4787-7275
-E-maill: zhjim1@ip.kimchang.com

변리사 윤 지 홍

첨부있음.

이 우편물은 2006-03-01 제 10042201
호에 의하여 내용증명우편물로
발송하였음을 증명함
광화문 우체국장

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD FOR ESTABLISHING AN ATM TRAFFIC CHANNEL PATH BETWEEN A BSC AND A BTS IN AN EV-DO SYSTEM

the specification of which is attached hereto unless the following space is checked:

☒ was filed on December 9, 2005 as United States Application Serial Number 10/560,142.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 (including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application).

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

	Number	Country	Day/Month/Year Filed
1.	PCT/KR2004/001856	PCT	23 July 2004
2.	10-2003-0051157	Korea	24 July 2003

I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and I direct that all correspondence be addressed to that Customer Number.

Customer Number: **020306**
Principal attorney or agent: Robert J. Irvine, III
Telephone number: 312-913-0001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

Full name of first inventor: Woo Seog KOO

Inventor's signature: _____ Date: _____

Residence: Jugong Apt. 115-303, 470, Anheung-dong, Icheon-si, Gyeonggi-do 467-712, Republic of Korea

Citizenship: Republic of Korea

Post Office Address: Jugong Apt. 115-303, 470, Anheung-dong, Icheon-si, Gyeonggi-do 467-712, Republic of Korea

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

ASSIGNMENT

Case No.: 05-434-B
Inventor: **Woo Seog KOO**
Date of Execution
of Application:

Serial No.: 10/560,142

Filing Date: December 9, 2005

In consideration of One Dollar ($1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assigns to:

UTSTARCOM KOREA LIMITED

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

METHOD FOR ESTABLISHING AN ATM TRAFFIC CHANNEL PATH BETWEEN A BSC AND A BTS IN AN EV-DO SYSTEM

and identified as:

Case No. 05-434-B

in the offices of McDONNELL BOEHNEN HULBERT & BERGHOFF LLP and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrants himself to be the owner of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrants that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

For said considerations the undersigned hereby agrees, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorizes said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agrees, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

WITNESS my hand and seal this __ day of _____, 2006.

_____
Woo Seog KOO

State of _____

County of _____

The foregoing instrument was acknowledged before me this _____ day of

_____, _____ by _____

_____
NOTARY PUBLIC

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

10

社 外 秘

직무 발명 신고서

신고일:2002년 월 일

발명실 결재	업무코드		승인권자	현장관리자 검토	법제특허부 결재	업무코드		승인권자
	주발명자	검토	팀장			기안	검토	승인
	직위/성명	DL/구우석	CJ/임성환	BJ/황중하		직위/성명		
	일 자	11/29	11/29	11/29	관리번호	일 지		
	보존년한	0.1.2.3.5.10.영구				보존년한	1.3.5.10.영구	보안등급 1.2.3 대외비

사내 직무발명보상기준에 의거하여 출원/등록을 의뢰하며,국내/외 등록권리를 양도합니다.

발명자 기재사항

발명의 명칭	EV-DO 시스템의 제어국의 SF와 기지국의 채널카드 간의 ATM 트래픽 채널 패스 설정 방법
발명의 개요	본 발명은 Qualcomm의 EV-DO 시스템을 근간으로 ATM 통신망을 기반으로 하여 상용화하는 과정에서 설계 및 구현된 제어국의 SF 블록과 기지국의 채널카드 블록(HCCA)간의 ATM 패스 설정 및 패스 설정을 위한 정보 교환 방법에 관한 내용을 특허로 한다.
관련PROJECT명	EV-DO
실 시 상 황	□착상 □설계완료 □시험(중,완료) ■사업화(준비중,실시중)
본발명의 발표상황	■미발표 □ 발표예정 □ 旣발표 ※旣발표 또는 발표 예정인 경우 발표(예정)일과 관련논문등 기입 요망 [발표(예정)일:2000년 월 일, 관련논문:]
선행특허자료	국 내 / 외 국
출원완급	□ 보 통 / □ 지 급-->(일이내) 지급출원 이 유
외국출원	■ 유 (이유: EV-DO관련 최근 기술임.) □ 무
KEY WORD	

법제특허부 기재사항

접 수 일	2002년 11월 30일	대리인	윤 승현	전담자관리번호 H)2002-12-0182
국내출원	☑ 특허 □ 실용 □ 공개기보 □ 출원보류(이유:)			
	심사청구 □ 유 ☑ 무	전략특허PROJECT명	14	
외국출원	□ 유 □ 무	출원등급	B	
	심의여부 □ 유 □ 무	*대리인 특허명세서작성 참조사항*		

출원국가선정				
□개별국출원 □ EPO출원 ☑ PCT출원				
1순위		5순위		
2순위		6순위		
3순위		7순위		
4순위		8순위		
비고				

□사무소 자체 국내출원 ☑특허팀검토후 국내출원
□국내외 동시출원

검토의견: OK

발명실장 기재사항

< 발명 평가내용 >

구 분	내 용	평가점수
기 술 성	단순 조합 기술임	☐ 1점
	약간 높은 수준을 요하는 기술임	☑ 3점
	고도의 수준을 요하는 기술임	☐ 5점
실현가능성	이론상 실현은 가능하나, 실험계획은 없슴	☐ 1점
	테스트 하려면 관련기술의 발전이 요구됨	☑ 2점
	테스트중이거나 예정임	☐ 3점
	양호한 테스트 결과 얻음(자료첨부 가능)	☐ 5점
	현재 사업화 준비중 또는 실시중임	☐ 7점
효 과	개선된 효과의 수준은? (공정 단순화, Yield, Cost 등의 측면)	☐ 3점 ☑ 2점 ☐ 1점
발명중요도	기술공개로 타사 권리확보를 방어하는 수준임	☐ 1점
	양산에 적용(예정) 가능한 발명임	☑ 3점
	반드시 필요한 독점 기술임	☐ 5점
평가결과		(10) 점

주)※상기 발명 평가표는 반드시 실장이 직접 기재하시기 바랍니다.
※"실현가능성"란에서 5점,7점에 해당된 발명은 증빙 자료가 반드시 필요 합니다.
※평가를 완료하신후 평가결과를 기입 바랍니다.

< 외국출원 평가내용 >

발명의 적용제품 현 황	*적용제품: *관련기술: *적용시기:	*복수제품에 적용되는 경우 전부 기재하시기 바라며, 향후 적용 제품경우 예상시점을 기재요망
평가내용	☐ 절대 필요 ☐ 국내출원후 1년간 관망 ☑ 필요 없음 ☐ 개별국출원, ☐ EPO출원, ☐ PCT출원 기술적측면	출원희망국가 1순위 2순위 3순위 4순위 5순위 6순위 7순위 8순위
	경제적측면	평가자 성명: 직위: 서명:

社 外 秘

발명자 인적사항								
발명자 1	성명	(한글) 구우석	(소프트웨어) 개발 Group	(호처리)실				
		(한문) 具佑奭	직위	대리	사번	H17203	TEL (031-639-8012)	
		(영문) Koo, Woo Seog	주민등록No	671006-[redacted]				
	E-mail	wskoo@hysyscomm.com	주소	(467-802)경기 이천 안흥470 주공APT 115-303			서 명	
발명자 2	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 3	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 4	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 5	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 6	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	

㈜1.주소는 상세히 기재하시고, E-mail은 반드시 *회사계정*으로 기재하시기 바람.
2.영문기재시 Fullname을 기재하시기 바람.

발명의 명세서

1. 발명의 명칭

EV-DO 시스템의 제어국의 SF 와 기지국의 채널카드 간의 ATM 트래픽 채널 패스 설정 방법

2.발명의 상세한 설명

1)산업상의 이용분야

ATM 망을 기반으로 하는 EV-DO 시스템에서 기지국와 제어국간 ATM 트래픽 패스 설정에 이용할 수 있다.

2)기술의 설명 및 그 문제점

EV-DO 시스템의 초기 모델인 Qualcomm 사의 EV-DO 제품은 IP 통신망을 기반으로 설계 및 구현되어 있다. 그러나 필요에 따라 다른 프로토콜 인터페이스를 기반으로 통신을 처리할 필요가 있다. 특히 ATM 망을 기반으로 통신을 설정하는 경우 모든 것이 새롭게 설계 구현되어야 한다.

본 발명은 Qualcomm 의 EV-DO 시스템을 근간으로 ATM 통신망을 기반으로 하여 상용화하는 과정에서 설계 및 구현된 제어국의 SF 블록과 기지국의 채널카드 블록(HCCA)간의 ATM 패스 설정 및 패스 설정을 위한 정보 교환 방법에 관한 내용을 특허로 한다.

3) 문제점을 해결하기 위한 본 발명의 기술적 원리

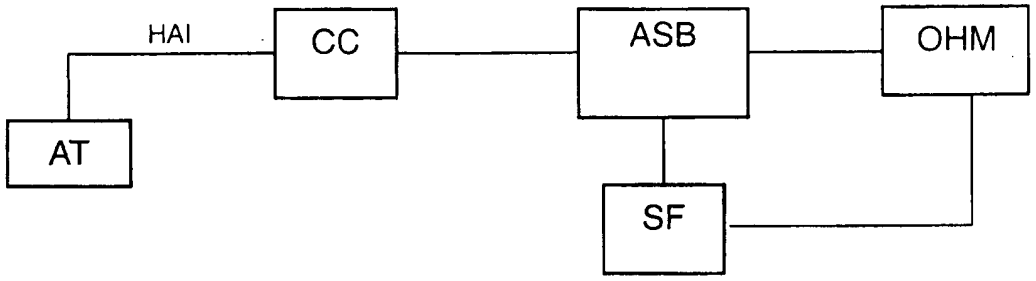
본 발명의 기술적 원리는 기존의 기지국과 제어국간의 메시지를 변경하고 추가하여 해당 ATM 패스 정보를 추가로 교환하는 방법을 이용하고 있다. 즉, 제어국 SF 블록는 기지국의 채널카드와 ATM 패스를 설정학 위하여 채널카드의 ATM 패스 정보가 필요하다. 그래서 기존 메시지를 최대한 반영하고 새롭게 메시지를 추가하여 ATM 패스 정보를 교환한 다음 ATM 경로를 동적으로 세팅한다.

4)본 발명의 구성 및 그 전반적인 동작설명

1. 전체 시스템 구조

EV-DO 시스템의 SF 블록은 제어국에 위치하고 있다. 채널카드 블록(HCCA)는 기지국에 위치하고 있다. 채널카드 블록은 단말기(AT: Access Terminal)와 SF 블록간의 중계 역활을 한다.

SF 와 채널카드 블록 및 기타 엔티티 간의 상호 관계는 다음과 같다.

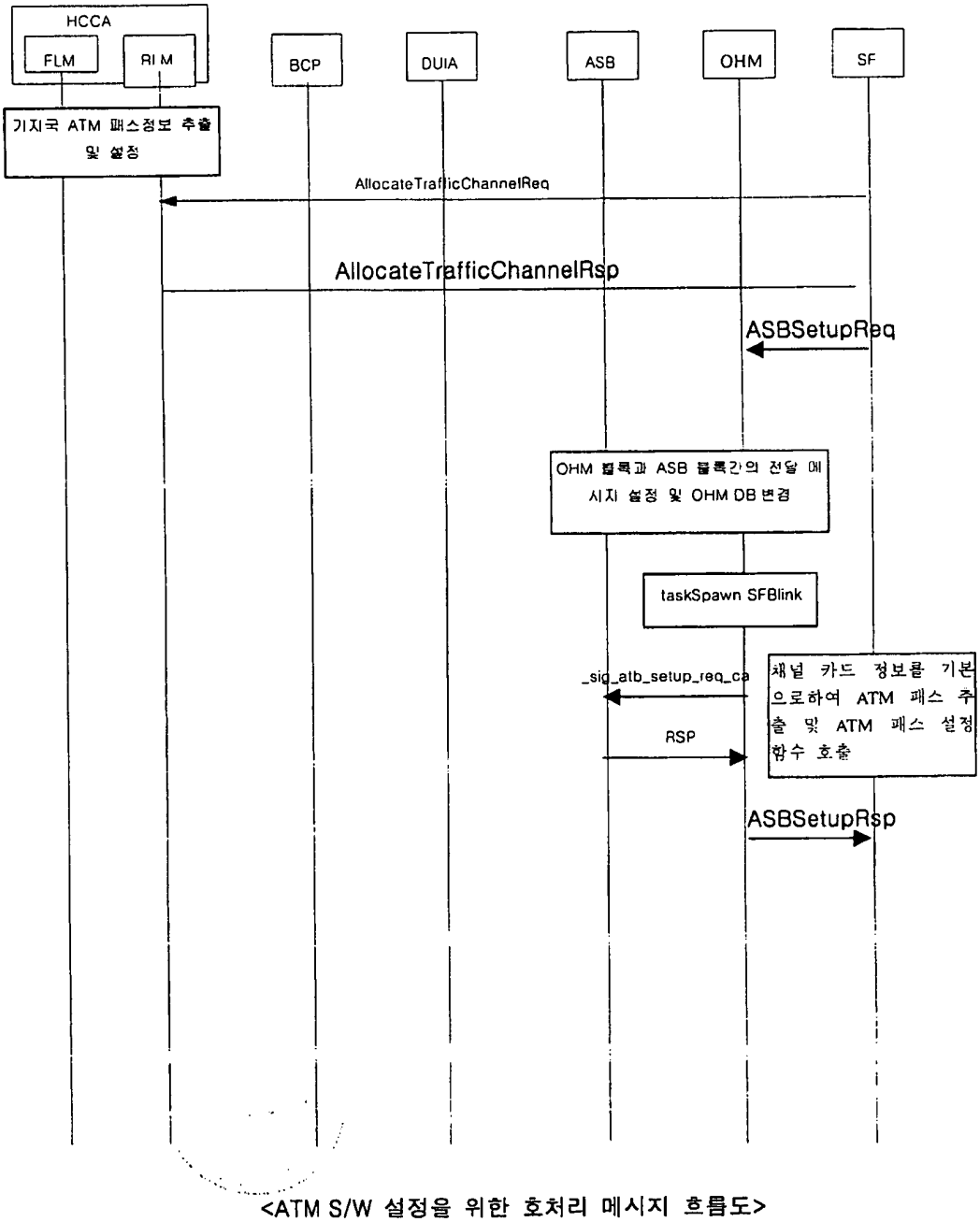


<SF, CC, OHM, ASB(ATM Swtich Block) 관계도>

전체 시스템 구성 중 기지국의 ATM 설정과 제어국의 ATM 패스 설정이 필요한데, 본 발명에서는 제어국의 ATM 패스설정에 관한 내용만 발명으로 한다.

2. SF S/W 블록간 메시지 흐름

다음 호처리 흐름도는 단말로부터의 호 설정 메시지를 수신하여 처리하는 과정 중 ATM 패스 설정을 위한 메시지 흐름도를 중심으로 표현한 내용이다. (굵은 표시 메시지가 추가 및 변경된 호처리 메시지)



<ATM S/W 설정을 위한 호처리 메시지 흐름도>

3. 블록간 메시지

3.1 AllocateTrafficChannelRsp Message (변경된 메시지)

전송방향 : 기지국(채널블록) → 제어국(SF 블록)

Type	Attribute	Value
word16	functionId	2501
word32	callId	
word16	RSMId	0 ~ 7
word16	pilotOffset	
byte	status	
byte	powerControlBitNumber	
word32	FLMIPAddress	
word16	ftcServerPort	
word32	RLMIPAddress	
word16	rxcServerPort	
추가 항목		
byte	*bcpId*	*0 ~ 64*
byte	*btsSectorIdx*	*0 ~ 2*
byte	*ftc_ccId*	*0 ~ 1*
byte	*ftc_ceId*	*0 ~ 64*
byte	*ftcBaiaId*	*0 ~ 1*
byte	*ftcLinkId*	*0 ~ 7*
byte	*rxc_ccId*	*0 ~ 1*
byte	*rxc_ceId*	*0 ~ 64*
byte	*rxcBaiaId*	*0 ~ 1*
byte	*rxcLinkId*	*0 ~ 7*

3.2 ASBSetupReq (신규 메시지)

전송방향 : 제어국(SF 블록) → 제어국(OHM 블록)

Type	Attribute	Value
word16	*RsmId*	*0 ~ 7*
byte	*BcpId*	*0 ~ 64*
byte	*SectorId*	*0 ~ 2*
byte	*FtcCcId*	*0 ~ 1*
byte	*FtcCeId*	*0 ~ 64*
byte	*FtcBaiaId*	*0 ~ 1*
byte	*FtcBlinkId*	*0 ~ 7*
byte	*FtcSfPortId*	*0 ~ 2*
byte	*RxcCcId*	*0 ~ 1*
byte	*RxcCeId*	*0 ~ 64*
byte	*RxcBaiaId*	*0 ~ 1*
byte	*RxcBlinkId*	*0 ~ 7*
byte	*RxcSfPortId*	*0 ~ 2*

3.3 ASBSetupRsp (신규 메시지)

전송방향 : 제어국(SF 블록) ← 제어국(OHM 블록)

Type	Attribute	Value
word16	*RsmId*	*0 ~ 7*
byte	*Result*	*0: Fail, 1:Success*
word16	*FtcSfToAtbVpi*	*0 ~ 512*
word16	*FtcSfToAtbVci*	*0 ~1024*
word16	*RxcSfToAtbVpi*	*0 ~ 512*
word16	*RxcSfToATbVci*	*0 ~ 1024*

5)본 발명의 다른 실시예

없음.

6)본 발명의 효과

EV-DO 시스템을 ATM 통신망을 기반으로 하는 통신망에서 기지국과 제어국간에 ATM 패스 설정할 때 이용할 수 있다. IP 기반의 통신망에서 ATM 기반의 통신망으로 전환할 때 최소의 변경으로 가능하다.

3.발명의 권리보호 범위

본 발명 전체, ATM 인터페이스 설정을 위하여 추가 변경된 메시지 부분, ATM 경로 설정을 위하여 추가된 블로간의 메시지 부분.

4.도면의 간단한 설명

없음.

EXHIBIT 2

[E-mail to the inventor Woo Seog Koo from K&C staff, Jiwon Lim]

From: zjwlim (Ji-Won Lim)
Date: Mar 8, 2006 3:12 PM
To: wskoo@msn.com
Cc: zhjim1(Hee-Jae Im); jhyoon (Jee-Hong Yoon)
Subject: [To. Mr. Woo Seog Koo] An announcement from Law offices of Kim & Chang
Attachment(s): FE241488-WSK-LETTER.pdf; FE241488-WSK–SIGNATURE DOCUMENTS.pdf; FE241488-WSK-INVENTOR'S DECLARATION.pdf

To. Woo Seogn Koo (e-mail: wskoo@msn.com)
Jugong Apt. 115-303, 470 Anheung-dong, Icheon-si, Gyeonggi-do 467-712, Republic of Korea

Re. Declaration and Power of Attorney and Assignment to be filed with U.S. Patent and Trademark Office (U.S. Serial No. 10/560,142)
K&C Ref.: GP048360

Dear Mr. Koo,

Hello. This is an announcement from Kim & Chang Law Offices.

Enclosed herewith please find scanned copies of our letter dated March 7, 2006 sent to you via content-certified mail. Please review the attached documents. When you receive the original documents, please sign and date the marked portions, and return them to us.

Thank you for your cooperation in this matter.

Law Offices of Kim & Chang
Attorney Jee Hong YOON (Tel. 82-2-2122-3515)
Manager Hee Jae IM (Tel. 82-2-2122-3822)

For more information regarding the documents, please contact Jiwon Lim (Tel. 82-2-2122-3838)

Ji-Won Lim
zjwlim@ip.kimchang.com

KIM & CHANG
Hungkuk Life Insurance Building, 9F, 226 Sinmunno 1-ga, Jongno-gu, Seoul 110-786, Korea
Tel.: (822) 764-8855 / (822) 2122-3900 (Operator)
Fax.: (822) 741-0328 / (822) 745-5954 / (822) 763-7434

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zjwlim (Ji-Won Lim)

보낸 사람: zjwlim (Ji-Won Lim)
보낸 날짜: 2006년 3월 8일 수요일 오후 3:12
받는 사람: 'wskoo@msn.com'
참조: jhyoon (Jee-Hong Yoon); zhjim1(Hee-Jae Im)
제목: [구우석님] 김.장법률사무소입니다.
첨부 파일: FE241488-구우석-안내문.pdf; FE241488-구우석-서명서류.pdf; FE241488-구우석-발명신고.pdf

수 신 : 구 우 석 님
경기도 이천시 안흥동 470 주공아파트 115동 303호 (우.467-712)
E-mail: wskoo@msn.com
제 목 : 미국 특허청 제출용 서명서류 송부의 건 (U.S. Serial No. 10/560,142)
당소 정리 번호 : GP048360

안녕하세요. 김장법률사무소 입니다.

2006년 3월 7일자로 우편발송(내용증명)한 서신의 사본을 스캔하여 첨부합니다. 본건과 관련한 상세한 사항은 첨부한 서신을 참조하시고, 우편으로 발송된 서신 원본을 받으시면 해당 서류에 서명하신 후 당소에 반송해주시면 감사하겠습니다

귀하의 협조에 깊은 감사드립니다.
김.장특허법률사무소
변리사 윤 지 홍 (전화 02-2122-3515)
차장 임 희 재 (전화 02-2122-3822)

첨부있음.
(서명서류 관련 담당자: 과장 임 지 원 전화 02-2122-3838)

임지원(Ji-Won Lim)
zjwlim@ip.kimchang.com
직통 : (02) 2122 3838

金·張 法律事務所
서울시 종로구 신문로 1가 226 흥국생명빌딩 9층 우편번호 110-786
전화: (02) 764-8855 / (02) 2122-3900 (대표)
팩스: (02) 741-0328 / (02) 745-5954 / (02) 763-7434

위 전자우편에 포함된 정보는 위에 기재된 수신인만을 위해 발송되는 것으로서 보안을 유지해야 하는 정보 및 법률상 또는 다른 사유로 인하여 공개가 금지된 정보가 들어 있을 수 있습니다. 귀하가 이 전자우편의 지정 수신인이 아니면 이를 무단으로 보유, 전송, 배포할 수 없으며, 일부의 내용이라도 공개, 복사해서는 안됩니다. 그러므로, 잘못 수신된 경우에는 즉시 전화 또는 전자우편 주소(all@ip.kimchang.com)로 연락하여 주시고, 원본 및 사본과 그에 따른 첨부 문서를 모두 삭제하여 주시기 바랍니다.

EXHIBIT 3

[Translation]

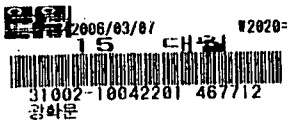
From Kim & Chang
To Mr. Woo Seog Koo
Jugong Apt. 115-303, 470 Anheung-dong, Icheon-si, Gyeonggi-do 467-712, Republic of Korea

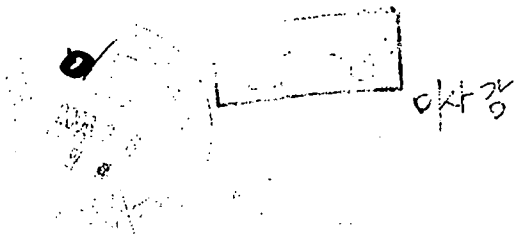
[Mail Return Notice by Post Office]
☑ 1st delivery date: 2006-03-07
The returned mail will be stored in the Post Office by 2006-03-8

[Reason for Return]
☐ Recipient not present ☑ **Recipient has moved** ☐ Recipient refused to accept package ☐ Incorrect address
☐ Recipient does not reside at indicated address

KIM & CHANG
Hungkuk Life Insurance Building, 9F
226 Sinmunno 1-ga, Jongno-gu
Seoul 110-786, Korea
TEL: (82-2)764-8855/2122-3900
FAX: (82-2)741-0328/745-5954/763-7434
E-MAIL: all@ip.kimchang.com
www.ip.kimchang.com

VIA AIR MAIL





경기도 이천시 안흥동 440 주공APT
115동 303호
구 우 석 님 귀하

467-712

PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE
(Attorney Docket No. 05-434-B)

In re Application of:	)
	)
Woo Seog Koo	) Examiner: TBA
	)
International Application No.: PCT/KR2004/01856	) Group Art Unit: 2616
U.S. Application No.: 10/560,142	)
	) Confirmation No. 1170
International Filing Date: July 23, 2004	)
U.S. Filing Date: December 9, 2005	)
	)
For: Method for Establishing an ATM Traffic Channel Path Between a BSC and a BTS In An EV-DO System	)

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

STATEMENT ESTABLISHING PROPRIETARY INTEREST BY PERSON SIGNING ON BEHALF OF NONSIGNING INVENTOR AND STATEMENT UNDER 37 C.F.R. § 3.73(B)

UTStarcom, Inc. has a sole proprietary interest in the present application. The invention, entitled "Method for Establishing an ATM Traffic Channel Path Between a BSC and a BTS In An EV-DO System," was originally assigned by the inventor to Hyundai Syscomm on November 29, 2002, as part of Hyundai Syscomm's employee invention compensation policy, and was filed as Korean National Application Number 2003-0051157 (Exhibit A). On April 27, 2004, UTStarcom, Inc., through its wholly owned subsidiary in Korea, UTStarcom Korea Limited, acquired Hyundai Syscomm's Intellectual Property Portfolio, including the rights to the above-referenced application, corresponding to Korean National Application Number 2003-0051157 (Exhibit B, page 45 of 46, entry number 1287). I establish this

proprietary interest by attaching a copy of the assignment of this invention by the nonsigning inventor to Hyundai Syscomm, Inc. recorded in reel number 018435 and frame number 0790 (Exhibit A), and a copy of the assignment of this invention by Hyundai Syscomm, Inc. to UTStarcom Korea Limited recorded in reel number 018424 and frame number 0902 (Exhibit B). As such, UTStarcom, Inc. is presently the assignee and owner of the rights to the above-referenced application.

This STATEMENT ESTABLISHING PROPRIETARY INTEREST BY PERSON SIGNING ON BEHALF OF NONSIGNING INVENTOR is made by Robert J. Irvine, III, a person authorized to act on behalf assignee UTStarcom, Inc.

Respectfully submitted,

Date: October 27, 2006

Robert J. Irvine, III
Registration No. 41,865
McDonnell Boehnen Hulbert & Berghoff LLP
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Fax: 312 913 0002

UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

OCTOBER 25, 2006

PTAS

500169718A

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MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
ROBERT J. IRVINE III
CHICAGO, IL 60606

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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RECORDATION DATE: 10/25/2006

REEL/FRAME: 018435/0790
NUMBER OF PAGES: 13

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: 05-434-B

ASSIGNOR:
KOO, WOO SEOG

DOC DATE: 11/29/2002

ASSIGNEE:
HYUNDAI SYSCOMM, INC.
SAN 136-1, AMI-RI, BUBAL-EUB,
ICHEON-SI
GYEONGGI-DO, DEM REP OF KOREA

467-701

SERIAL NUMBER: 10560142 FILING DATE:
PATENT NUMBER: ISSUE DATE:
TITLE: METHOD FOR ESTABLISHING AN ATM TRAFFIC CHANNEL PATH BETWEEN A BSC AND A BTS IN AN EV-DO SYSTEM

ASSIGNMENT SERVICES BRANCH
PUBLIC RECORDS DIVISION

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

10/25/2006
500169718

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Woo Seog Koo	11/29/2002

RECEIVING PARTY DATA

Name:	Hyundai Syscomm, Inc.
Street Address:	San 136-1, Ami-Ri, Bubal-eub, Icheon-si
City:	Gyeonggi-do
State/Country:	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
Postal Code:	467-701

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	10560142

CH $40.00 10560142

CORRESPONDENCE DATA

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Correspondent Name: McDonnell Boehnen Hulbert & Berghoff LLP
Address Line 1: 300 South Wacker Drive
Address Line 2: Robert J. Irvine III
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ATTORNEY DOCKET NUMBER:	05-434-B
NAME OF SUBMITTER:	Robert J. Irvine III

Total Attachments: 11
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HYUNDAI SYSCOMM

Confidential

Employee's Declaration of Invention

Date:, 2002

Invention Team					On-the-job Maintenance Team		Patent Team				
Approval	Work Code		Approving Authority		Reviewer	Approval	Work Code		Approving Authority
	Primary Inventor	Reviewer	Approved by				Drafter	Reviewer	Approved by
	signed	*signed*	*signed*				*signed*	*signed*	*signed*
Position / Name	DL/KOO Woo Seog	CJ/LIM, Sung Hwan	BJ/HWANG, Jong Ha		/	Position / Name	SW/LEE, Chun Mi	DL/YOON, Hyoung Jin	
Date	Nov. 29	Nov. 29	Nov. 29	Control No.		Date			
Years in Storage	0, 1, 2, 3, 5, 10, Permanent					Years in Storage	1, 3, 5, 10, P	Security Rating	1, 2, 3, Confidential

Under the provisions of the employee's invention compensation policy, I request to proceed with the filing/registration of my invention and to assign its rights for domestic and international registrations.

Statement by Inventor

Title of the Invention	METHOD OF SETTING ATM TRAFFIC CHANNEL PATH BETWEEN CHANNEL CARD OF A BASE-STATION AND SF OF CONTROL-STATION IN EV-DO SYSTEM
Summary of the Invention	The present invention relates to a method of setting ATM path between an SF block in a control-station and a channel card block (HCCA) in a base-station and a method of exchanging an information for setting the path, which are designed and implemented during commercialization based on ATM communication (not sure what this refers to), based on the EV-DO system of the Qualcomm.
Name(s) of Related Projects	EV-DO
Status of the Embodiment	☐ Conception ☐ Completed Design ☐ (In, Completed) Testing ☑ (Preparing, In) Business Implementation
Publication Status of the Invention	☑ Unpublished ☐ Expected to be Published※ ☐ Published Earlier※ ※ If checked, please specify the (scheduled) date of publication and related dissertations. [(Scheduled) Date of Publication: Month Day , 2000; Related dissertations:]
Prior Art	Korean: Foreign:
Filing Term	Standard ☐ Urgent → (Within days) — Reason for Urgent Filing:
Foreign Filing	☑ Yes (Reason: a recent technique related to EV-DP) ☐ No
Key Word	

Statement by Patent Team

Date of Receipt	Nov. 30, 2002	Agent	Moon	Hyundai Syscomm Ref.	HJ2002-12-0182
Korean Filing	☑ Patent ☐ Utility Model ☐ Journal of Technical Disclosure ☐ Withhold Filing (Reason:)				
	Request for Examination: ☐ Yes ☑ No		Strategic Patent Project for the Invention: 14		
Foreign Filing	☐ Yes ☐ No		Filing Rating: B		
	Deliberation: ☐ Yes ☐ No		*Remarks for Agents writing the specification*		

Designating Countries to File				
☐ Direct National Filing ☐ EPO Filing ☐ PCT Filing				☐ Domestic filing without Review ☑ Domestic filing after Patent Team Review ☐ Simultaneous Korean & Foreign Filing
1st Priority		5th Priority		
2nd Priority		6th Priority		Reviewer's Opinion: OK
3rd Priority		7th Priority		
4th Priority		8th Priority		
Note				

Statement by Manager of Invention Team

< Evaluation of the Invention>

Category	Contents	Evaluation Grade
Technology	Simple technology	☐ 1 point
	Slightly higher technology	☑ 3 point
	Advanced technology	☐ 5 point
Possible Implementation	Theoretically possible to implement, but has no plan for testing	☐ 1 point
	Developments in related technologies are required first for testing	☑ 2 point
	Currently testing or planning to test	☐ 3 point
	Tested and obtained satisfactory results (Attach Documents)	☐ 5 point
	Preparing or currently implementing into one's business	☐ 7 point
Effects	What is the level of improvement? (Simplification of processes, yield, cost etc.)	☐ 3 ☑ 2 ☐ 1 point
Importance	Defending the rights in disclosing the technology	☐ 1 point
	Adaptable (or scheduled) for mass production	☑ 3 point
	Absolutely necessary to obtain exclusive technology	☐ 5 point
Evaluation Result		(10) Point

Note: ※ The Invention Evaluation form must be filled out by the manager of the invention team.
※ Evidence is necessary for those inventions that are rated 5 or 7 points in the section of "Possibility for Implementation."
※ The Evaluation Result should be filled in only after completing the Evaluation.

<Evaluation for Foreign Filing>

Status of products to which the invention was applied	* Applied Product: * Related Technology: * Applied Period:	* For cases applied to multiple products, list all product names. For future cases to be applied, mark the estimated period.
Evaluation	☐ Absolutely necessary ☐ Observe for a year after filing domestically ☑ Not necessary	Designation of Countries 1st Priority 2nd Priority 3rd Priority
	☐ Direct National Filing ☐ EPO Filing ☐ PCT Filing	4th Priority 5th Priority
	Technological Factor	6th Priority 7th Priority 8th Priority
	Economical Factor	Evaluator Name: HWANG, Jong Ha Position: Department Manager Signature: *signed*

Inventor Information

Primary Inventor

Name	(Korean) 구우석	(Software) Development Group (Call Processing) Team				
	(Chinese) 具佑奭	**Position**	DL	**Employee ID No.**	H17203	**Tel** (031-639-8012)
	(English) Koo, Woo Seog	**Residence ID**		671006-1695616		
E-mail	wskoo@hysyscomm.com	**Address**	(467-802) Jugong Apt. 115-303, 470 Anheung-dong, Icheon-si, Gyeonggi-do			**Signature**

Joint Inventor

Name	(Korean)	( ) Development Group ( ) Team				
	(Chinese)	**Position**		**Employee ID No.**		**Tel** ( )
	(English)	**Residence ID**				%
E-mail		**Address**				**Signature**

Name	(Korean)	( ) Development Group ( ) Team				
	(Chinese)	**Position**		**Employee ID No.**		**Tel** ( )
	(English)	**Residence ID**				%
E-mail		**Address**				**Signature**

Name	(Korean)	( ) Development Group ( ) Team				
	(Chinese)	**Position**		**Employee ID No.**		**Tel** ( )
	(English)	**Residence ID**				%
E-mail		**Address**				**Signature**

Name	(Korean)	( ) Development Group ( ) Team				
	(Chinese)	**Position**		**Employee ID No.**		**Tel** ( )
	(English)	**Residence ID**				%
E-mail		**Address**				**Signature**

Name	(Korean)	( ) Development Group ( ) Team				
	(Chinese)	**Position**		**Employee ID No.**		**Tel** ( )
	(English)	**Residence ID**				%
E-mail		**Address**				**Signature**

Note: 1. The full address and e-mail address are required.
2. Write the full name in English.

10

직무 발명 신고서

신고일:2002년 월 일

발명실 결재	업무코드		승인권자	현장관리자	검토	법제특허부 결재	업무코드		승인권자
	주발명자	검토	팀장				기안	검토	승인
직위/성명	DL/구우석	CJ/임성환	BJ/황중하		/	직위/성명			
일 자	11/29	11/29	11/29	관리번호		일 자			
보존년한	0.1.2.3.5.10.영구					보존년한	1.3.5.10.영구	보안등급	1.2.3 대외비

사내 직무발명보상기준에 의거하여 출원/등록을 의뢰하며,국내/외 등록권리를 양도합니다.

발명자 기재사항

발명의 명칭	EV-DO 시스템의 제어국의 SF와 기지국의 채널카드 간의 ATM 트래픽 채널 패스 설정 방법
발명의 개요	본 발명은 Qualcomm의 EV-DO 시스템을 근간으로 ATM 통신망을 기반으로 하여 상용화하는 과정에서 설계 및 구현된 제어국의 SF 블록과 기지국의 채널카드 블록(HCCA)간의 ATM 패스 설정 및 패스 설정을 위한 정보 교환 방법에 관한 내용을 특허로 한다.
관련PROJECT명	EV-DO
실 시 상 황	□착상 □설계완료 □시험(중,완료) ■사업화(준비중,실시중)
본발명의 발표상황	■미발표 □ 발표예정 □ 旣발표 ※旣발표 또는 발표 예정인 경우 발표(예정)일과 관련논문등 기입 요망 [발표(예정)일:2000년 월 일, 관련논문:]
선행특허자료	국 내 / 외 국
출원완급	□ 보 통 □ 지 급-->(일이내) 지급출원 이 유
외국출원	■ 유 (이유: EV-DO관련 최근 기술임.) □ 무
KEY WORD	

법제특허부 기재사항

접 수 일	2002년 11월 20일	대리인	윤 등 현	전담자관리번호 HDxxxx-xx-xxxx
국내출원	☑ 특허 □ 실용 □ 공개기보 □ 출원보류(이유:)			
	심사청구	□ 유 ☑ 무	전략특허PROJECT명	14
외국출원	□ 유 □ 무		출원등급	B
	심의여부	□ 유 □ 무	*대리인 특허명세서작성 참조사항*	

출원국가선정				
□개별국출원 □ EPO출원 □ PCT출원				
1순위		5순위		
2순위		6순위		
3순위		7순위		
4순위		8순위		
비고				

□사무소 자체 국내출원 ☑특허팀검토후 국내출원
□국내외 동시출원

검토의견
ok

발명실장 기재사항

< 발명 평가내용 >

구 분	내 용	평가점수
기 술 성	단순 조합 기술임	☐ 1점
	약간 높은 수준을 요하는 기술임	☑ 3점
	고도의 수준을 요하는 기술임	☐ 5점
실현가능성	이론상 실현은 가능하나, 실험계획은 없슴	☐ 1점
	테스트 하려면 관련기술의 발전이 요구됨	☑ 2점
	테스트중이거나 예정임	☐ 3점
	양호한 테스트 결과 얻음(자료첨부 가능)	☐ 5점
	현재 사업화 준비중 또는 실시중임	☐ 7점
효 과	개선된 효과의 수준은? (공정 단순화, Yield, Cost 등의 측면)	☐ 3점 ☑ 2점 ☐ 1점
발명중요도	기술공개로 타사 권리확보를 방어하는 수준임	☐ 1점
	양산에 적용(예정) 가능한 발명임	☑ 3점
	반드시 필요한 독점 기술임	☐ 5점
평가결과		(10) 점

주)※상기 발명 평가표는 반드시 실장이 직접 기재하시기 바랍니다.
※"실현가능성"란에서 5점,7점에 해당된 발명은 증빙 자료가 반드시 필요 합니다.
※평가를 완료하신후 평가결과를 기입 바랍니다.

< 외국출원 평가내용 >

발명의 적용제품 현 황	*적용제품: *관련기술: *적용시기:	*복수제품에 적용되는 경우 전부 기재하시기 바라며, 향후 적용 제품경우 예상시점을 기재요망
평가내용	☐ 절대 필요 ☐ 국내출원후 1년간 관망 ☑ 필요 없음 ☐ 개별국출원, ☐ EPO출원, ☐ PCT출원 기술적측면	출원희망국가 1순위 2순위 3순위 4순위 5순위 6순위 7순위 8순위
	경제적측면	평가자 성명: 직위: 서명:

발명자 인적사항								
발명자 1	성명	(한글) 구우석	(소프트웨어) 개발 Group	(호처리)실				
		(한문) 具佑奭	직위	대리	사번	H17203	TEL (031-639-8012)	
		(영문) Koo, Woo Seog	주민등록No	671006-[redacted]				
	E-mail	wskoo@hysyscomm.com	주소	(467-802)경기 이천 안흥470 주공APT 115-303			서 명	
발명자 2	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 3	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 4	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 5	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 6	성명	(한글)	( ) 개발 Group	( )실				
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	

㈜1. 주소는 상세히 기재하시고, E-mail은 반드시 *회사계정*으로 기재하시기 바람.
2. 영문기재시 *Fullname*을 기재하시기 바람.

발명의 명세서

1. 발명의 명칭

EV-DO 시스템의 제어국의 SF와 기지국의 채널카드 간의 ATM 트래픽 채널 패스 설정 방법

2.발명의 상세한 설명

1)산업상의 이용분야

ATM 망을 기반으로 하는 EV-DO 시스템에서 기지국와 제어국간 ATM 트래픽 패스 설정에 이용할 수 있다.

2)기술의 설명 및 그 문제점

EV-DO 시스템의 초기 모델인 Qualcomm 사의 EV-DO 제품은 IP 통신망을 기반으로 설계 및 구현되어 있다. 그러나 필요에 따라 다른 프로토콜 인터페이스를 기반으로 통신을 처리할 필요가 있다. 특히 ATM 망을 기반으로 통신을 설정하는 경우 모든 것이 새롭게 설계 구현되어야 한다.

본 발명은 Qualcomm 의 EV-DO 시스템을 근간으로 ATM 통신망을 기반으로 하여 상용화하는 과정에서 설계 및 구현된 제어국의 SF 블록과 기지국의 채널카드 블록(HCCA)간의 ATM 패스 설정 및 패스 설정을 위한 정보 교환 방법에 관한 내용을 특허로 한다.

3) 문제점을 해결하기 위한 본 발명의 기술적 원리

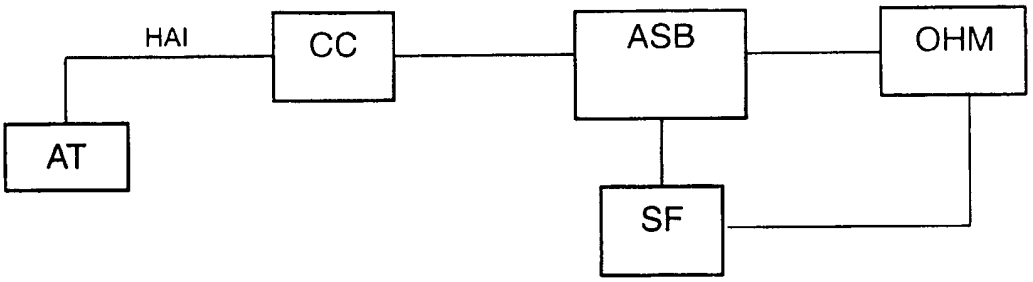
본 발명의 기술적 원리는 기존의 기지국과 제어국간의 메시지를 변경하고 추가하여 해당 ATM 패스 정보를 추가로 교환하는 방법을 이용하고 있다. 즉, 제어국 SF 블록는 기지국의 채널카드와 ATM 패스를 설정학 위하여 채널카드의 ATM 패스 정보가 필요하다. 그래서 기존 메시지를 최대한 반영하고 새롭게 메시지를 추가하여 ATM 패스 정보를 교환한 다음 ATM 경로를 동적으로 세팅한다.

4)본 발명의 구성 및 그 전반적인 동작설명

1. 전체 시스템 구조

EV-DO 시스템의 SF 블록은 제어국에 위치하고 있다. 채널카드 블록(HCCA)는 기지국에 위치하고 있다. 채널카드 블록은 단말기(AT: Access Terminal)와 SF 블록간의 중계 역활을 한다.

SF 와 채널카드 블록 및 기타 엔티티 간의 상호 관계는 다음과 같다.

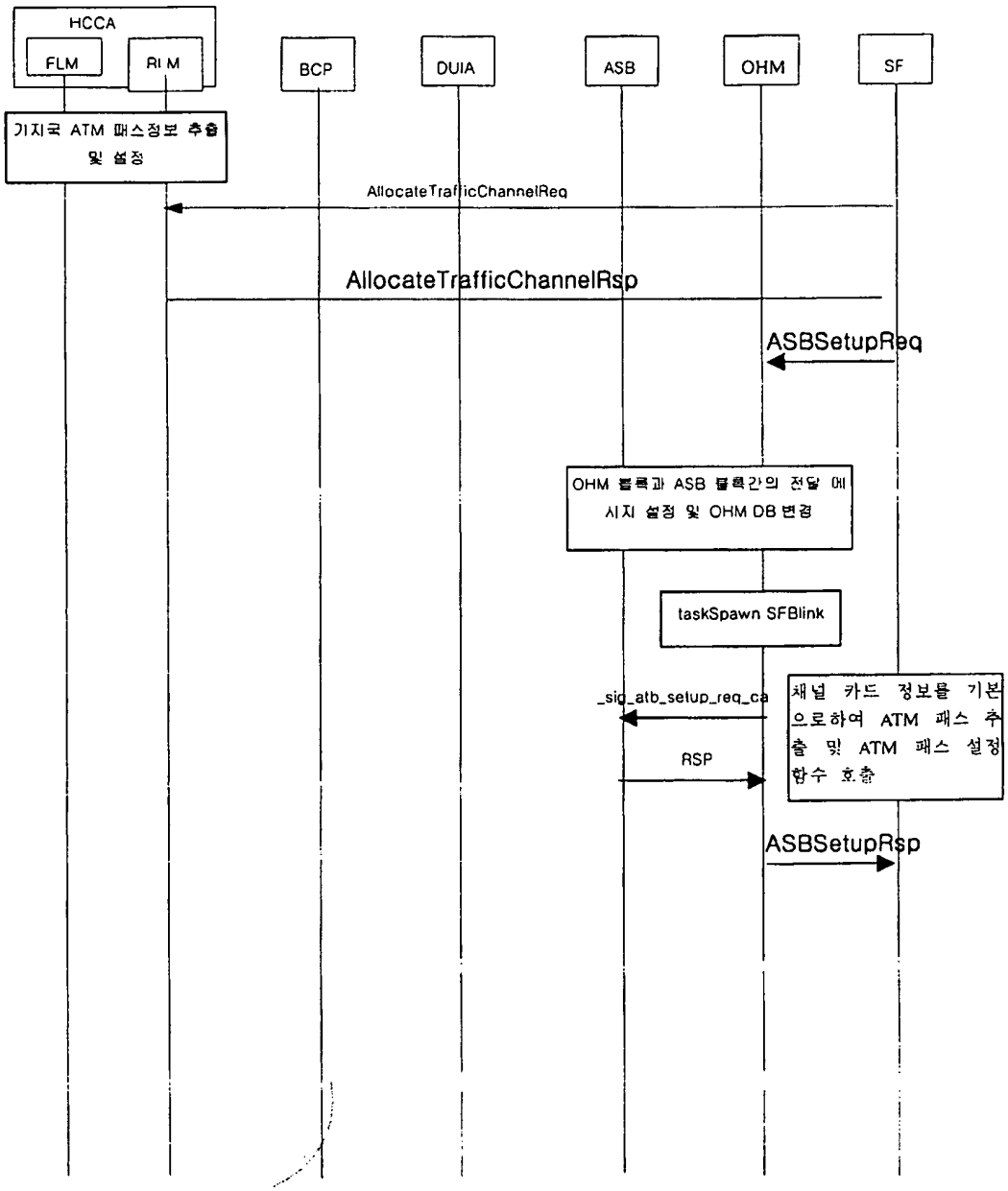


<SF, CC, OHM, ASB(ATM Swtich Block) 관계도>

전체 시스템 구성 중 기지국의 ATM 설정과 제어국의 ATM 패스 설정이 필요한데. 본 발명에서는 제어국의 ATM 패스설정에 관한 내용만 발명으로 한다.

2. SF S/W 블록간 메시지 흐름

다음 호처리 흐름도는 단말로부터의 호 설정 메시지를 수신하여 처리하는 과정 중 ATM 패스 설정을 위한 메시지 흐름도를 중심으로 표현한 내용이다. (굵은 표시 메시지가 추가 및 변경된 호처리 메시지)



<ATM S/W 설정을 위한 호처리 메시지 흐름도>

3. 블록간 메시지

3.1 AllocateTrafficChannelRsp Message (변경된 메시지)

전송방향 : 기지국(채널블록) → 제어국(SF 블록)

Type	Attribute	Value
word16	functionId	2501
word32	callId	
word16	RSMId	0 ~ 7
word16	pilotOffset	
byte	status	
byte	powerControlBitNumber	
word32	FLMIPAddress	
word16	ftcServerPort	
word32	RLMIPAddress	
word16	rxcServerPort	
추가 항목		
byte	*bcpId*	*0 ~ 64*
byte	*btsSectorIdx*	*0 ~ 2*
byte	*ftc_ccId*	*0 ~ 1*
byte	*ftc_ceId*	*0 ~ 64*
byte	*ftcBaiaId*	*0 ~ 1*
byte	*ftcLinkId*	*0 ~ 7*
byte	*rxc_ccId*	*0 ~ 1*
byte	*rxc_ceId*	*0 ~ 64*
byte	*rxcBaiaId*	*0 ~ 1*
byte	*rxcLinkId*	*0 ~ 7*

3.2 ASBSetupReq (신규 메시지)

전송방향 : 제어국(SF 블록) → 제어국(OHM 블록)

Type	Attribute	Value
word16	*RsmId*	*0 ~ 7*
byte	*BcpId*	*0 ~ 64*
byte	*SectorId*	*0 ~ 2*
byte	*FtcCcId*	*0 ~ 1*
byte	*FtcCeId*	*0 ~ 64*
byte	*FtcBaiaId*	*0 ~ 1*
byte	*FtcBlinkId*	*0 ~ 7*
byte	*FtcSfPortId*	*0 ~ 2*
byte	*RxcCcId*	*0 ~ 1*
byte	*RxcCeId*	*0 ~ 64*
byte	*RxcBaiaId*	*0 ~ 1*
byte	*RxcBlinkId*	*0 ~ 7*
byte	*RxcSfPortId*	*0 ~ 2*

3.3 ASBSetupRsp (신규 메시지)

전송방향 : 제어국(SF 블록) ← 제어국(OHM 블록)

Type	Attribute	Value
word16	*RsmId*	*0 ~ 7*
byte	*Result*	*0: Fail, 1:Success*
word16	*FtcSfToAtbVpi*	*0 ~ 512*
word16	*FtcSfToAtbVci*	*0 ~1024*
word16	*RxcSfToAtbVpi*	*0 ~ 512*
word16	*RxcSfToATbVci*	*0 ~ 1024*

5)본 발명의 다른 실시예

없음.

6)본 발명의 효과

EV-DO 시스템을 ATM 통신망을 기반으로 하는 통신망에서 기지국과 제어국간에 ATM 패스 설정할 때 이용할 수 있다. IP 기반의 통신망에서 ATM 기반의 통신망으로 전환할 때 최소의 변경으로 가능하다.

3.발명의 권리보호 범위

본 발명 전체, ATM 인터페이스 설정을 위하여 추가 변경된 메시지 부분, ATM 경로 설정을 위하여 추가된 블로간의 메시지 부분.

4.도면의 간단한 설명

없음.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

OCTOBER 23, 2006

PTAS

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MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP
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ASSIGNOR:
HYUNDAI SYSCOMM, INC.

DOC DATE: 04/27/2004

ASSIGNEE:
UTSTARCOM KOREA LIMITED
SAN 136-1, AMI-RI, BUBAL-EUB,
ICHEON-SI
KYONGKI-DO, DEM REP OF KOREA

467-701

SERIAL NUMBER: 10556274
PATENT NUMBER:

FILING DATE:
ISSUE DATE:

TITLE: METHOD FOR CALL COMPLETION SERVICE

SERIAL NUMBER: 10545578 FILING DATE:
PATENT NUMBER: ISSUE DATE:
TITLE: ATM SWITCH FOR USE IN W-CDMA

SERIAL NUMBER: 10545922 FILING DATE:
PATENT NUMBER: ISSUE DATE:
TITLE: METHOD FOR STABILIZING BTS USING E1 TRUNK BOARD DUPLEXING OF BSC

SERIAL NUMBER: 10545505 FILING DATE:
PATENT NUMBER: ISSUE DATE:
TITLE: METHOD FOR OPTIMIZING A DSP INPUT CLOCK USING A COMPARING/ANALYZING CIRCUIT

SERIAL NUMBER: 10560142 FILING DATE:
PATENT NUMBER: ISSUE DATE:
TITLE: METHOD FOR ESTABLISHING AN ATM TRAFFIC CHANNEL PATH BETWEEN A BSC AND A BTS IN AN EV-DO SYSTEM

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PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

10/23/2006
500168441

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Hyundai Syscomm, Inc.	04/27/2004

RECEIVING PARTY DATA

Name:	UTStarcom Korea Limited
Street Address:	San 136-1, Ami-Ri, Bubal-eub, Icheon-si
City:	Kyongki-do
State/Country:	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
Postal Code:	467-701

PROPERTY NUMBERS Total: 5

Property Type	Number
Application Number:	10556274
Application Number:	10545578
Application Number:	10545922
Application Number:	10545505
Application Number:	10560142

CH $200.00 10556274

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Total Attachments: 49
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〔제41호서식〕

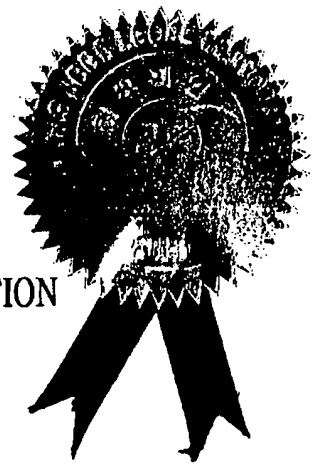
공증인가
법무법인 대종종합법률사무소

서울·종로구 당주동 160
(변호사회관 303호)
〔공증부 736-6604〕

Registered No. 2004 - 6060

NOTARIAL CERTIFICATE

DAE JONG LEGAL CORPORATION
160, Dang Joo-Dong, Jong Ro-Ku,
Seoul, Korea



23230-05711일
90.11.26 승인

210㎜×297㎜(특급) 70g/㎡

KIM & CHANG

Hannuri Building, 219 Naeja-dong, Jongno-gu, Seoul 110-053, Korea
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E-Mail: all@ip.kimchang.com

DECLARATION

I, the undersigned, hereby declare:

(1) That my name, mailing address and citizenship are as stated below;

(2) That I am knowledgeable in both English and Korean, which are the languages used in relation to the Assignment filed with the Korean Intellectual Property Office; and

(3) That I have translated said Assignment filed with the Korean Intellectual Property Office into English, a copy of which is attached hereto, and believe that said translation is a true and complete translation of the aforementioned Korean Assignment.

22nd day of November, 2004

Full name of the translator : LIM, Ji Won

Signature of the translator : Jiwon Lim

Mailing address : c/o Kim & Chang, Hannuri Building, 219 Naeja-dong, Jongno-gu, Seoul 110-053, Korea, Republic of Korea

Citizenship : Republic of Korea

KIM & CHANG
[Translation]

ASSIGNMENT

By this instrument, HYUNDAI SYSCOMM, INC., a corporation duly organized and existing under the Laws of Republic of Korea at San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-701, Republic of Korea do hereby declare that on April 27, 2004 it has assigned and transferred all rights, title and interest in the cases as listed in the attached Schedule I to UTStarcom Korea Limited, a corporation duly organized and existing under the laws of Republic of Korea at San 136-1, Ami-ri, Bubal-eub, Icheon-si, Kyongki-do 467-701, Republic of Korea

IN WITNESS WHEREOF,

I have set my hand hereto this 27th day of April, 2004.

Assignor: HYUNDAI SYSCOMM INC.

By: (SEALED)

Typed Name: SEONG-IK JANG

Position: CEO & President

Schedule 1

No.	Korean Patent Application No.
1	1996009524
2	1996025985
3	1997007238
4	1997013781
5	1997055585
6	1997055586
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352	1999040092
353	1999040093
354	1999040094
355	1999040162
356	1999040165
357	1999040166
358	1999040991
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364	1999042345
365	1999042858
366	1999042859
367	1999042860
368	1999042861
369	1999044287
370	1999044288
371	1999044289
372	1999044290
373	1999045391
374	1999045883
375	1999046999
376	1999047168
377	1999047169

Confidential

378	1999047170
379	1999047171
380	1999047172
381	1999047173
382	1999047174
383	1999047175
384	1999047176
385	1999047177
386	1999047179
387	1999047180
388	1999047181
389	1999047182
390	1999047186
391	1999047967
392	1999047977
393	1999047978
394	1999048512
395	1999048513
396	1999049737
397	1999049738
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399	1999049740
400	1999049928
401	1999049929
402	1999049930
403	1999050402
404	1999050403
405	1999050870
406	1999051355

Confidential

407	1999052678
408	1999052679
409	1999052680
410	1999052681
411	1999052763
412	1999052764
413	1999052765
414	1999053030
415	1999053031
416	1999053033
417	1999053034
418	1999053035
419	1999053039
420	1999053179
421	1999053418
422	1999055154
423	1999055155
424	1999055156
425	1999055157
426	1999055219
427	1999055221
428	1999055222
429	1999055225
430	1999055226
431	1999055487
432	1999055531
433	1999055532
434	1999055533
435	1999056165

Confidential

436	1999056226
437	1999056227
438	1999056228
439	1999056610
440	1999056611
441	1999056612
442	1999056613
443	1999056614
444	1999056923
445	1999057757
446	1999058229
447	1999058230
448	1999058231
449	1999059398
450	1999059399
451	1999059710
452	1999059834
453	1999060260
454	1999060263
455	1999060456
456	1999060458
457	1999060460
458	1999060461
459	1999061100
460	1999061103
461	1999061700
462	1999061745
463	1999061746
464	1999061747

Confidential

465	1999062120
466	1999062778
467	1999063735
468	1999066217
469	1999066218
470	1999066219
471	1999066223
472	1999066224
473	1999066225
474	1999066347
475	1999066348
476	1999066349
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479	1999067483
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481	1999067485
482	1999067489
483	1999067492
484	1999067495
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486	2000002884
487	2000003097
488	2000003380
489	2000004807
490	2000004808
491	2000005183
492	2000005810
493	2000005940

Confidential

494	2000005942
495	2000005984
496	2000005985
497	2000005986
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499	2000005988
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501	2000005990
502	2000008064
503	2000008267
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513	2000008434
514	2000008435
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516	2000008976
517	2000008977
518	2000008978
519	2000008979
520	2000008980
521	2000009019
522	2000009193

Confidential

523	2000009600
524	2000009604
525	2000009605
526	2000010121
527	2000010463
528	2000010470
529	2000010471
530	2000010473
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537	2000012439
538	2000012440
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544	2000012557
545	2000014280
546	2000014315
547	2000016016
548	2000016017
549	2000016022
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551	2000016025

Confidential

552	2000016026
553	2000016027
554	2000016029
555	2000016032
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557	2000016034
558	2000016575
559	2000016578
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561	2000016651
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563	2000016949
564	2000017609
565	2000018586
566	2000018646
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568	2000021231
569	2000021278
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571	2000021425
572	2000021426
573	2000021455
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575	2000022265
576	2000022266
577	2000022267
578	2000022268
579	2000022269
580	2000022550

Confidential

581	2000022551
582	2000022553
583	2000022554
584	2000022555
585	2000022900
586	2000022902
587	2000022909
588	2000022911
589	2000024687
590	2000024688
591	2000025016
592	2000025018
593	2000025019
594	2000025966
595	2000026433
596	2000026434
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599	2000027032
600	2000027034
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604	2000030627
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606	2000032356
607	2000032357
608	2000034111
609	2000034535

Confidential

610	2000034536
611	2000035273
612	2000035276
613	2000035453
614	2000035455
615	2000035456
616	2000037914
617	2000038323
618	2000038325
619	2000038326
620	2000042357
621	2000042767
622	2000042768
623	2000044110
624	2000047430
625	2000047844
626	2000051257
627	2000051981
628	2000051982
629	2000051986
630	2000052486
631	2000052487
632	2000052509
633	2000052513
634	2000053506
635	2000055647
636	2000055739
637	2000055740
638	2000056181

Confidential

639	2000056182
640	2000056183
641	2000056184
642	2000059971
643	2000059972
644	2000059973
645	2000059974
646	2000060365
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663	2000065914
664	2000065915
665	2000065920
666	2000066034
667	2000066091

Confidential

668	2000066092
669	2000066218
670	2000067638
671	2000067805
672	2000067806
673	2000067807
674	2000067808
675	2000067809
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677	2000071224
678	2000073770
679	2000073771
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683	2000074213
684	2000074214
685	2000074215
686	2000074216
687	2000074658
688	2000074661
689	2000076897
690	2000080376
691	2000081200
692	2000081201
693	2000081203
694	2000081204
695	2000082218
696	2000082220

Confidential

697	2000082221
698	2000082222
699	2000082225
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705	2000082232
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715	2000082903
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717	2000084649
718	2000084650
719	2000084652
720	2000084655
721	2000084656
722	2000084658
723	2000084659
724	2000084660
725	2000085086

Confidential

726	2000085087
727	2000085094
728	2000085096
729	2000085098
730	2000085099
731	2000085100
732	2000085101
733	2000085102
734	2000086505
735	2000086506
736	2000086514
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739	2000087469
740	2000087470
741	2000087479
742	2000087483
743	2000087560
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745	2000087566
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747	2000087569
748	2000087592
749	2000087596
750	2000087597
751	2001000043
752	2001002658
753	2001002659
754	2001002660

Confidential

755	2001002661
756	2001002662
757	2001002663
758	2001002664
759	2001002665
760	2001002666
761	2001002871
762	2001003475
763	2001003476
764	2001003477
765	2001003478
766	2001003609
767	2001004858
768	2001006576
769	2001006601
770	2001007529
771	2001007573
772	2001007574
773	2001007575
774	2001007576
775	2001007577
776	2001007721
777	2001008984
778	2001009904
779	2001010768
780	2001011610
781	2001011611
782	2001014395
783	2001014929

Confidential

784	2001015273
785	2001015613
786	2001015614
787	2001015879
788	2001016841
789	2001017919
790	2001017920
791	2001017921
792	2001018697
793	2001018792
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796	2001019219
797	2001019220
798	2001019222
799	2001022655
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801	2001023845
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804	2001024905
805	2001025746
806	2001026657
807	2001028400
808	2001028737
809	2001028738
810	2001029380
811	2001029381
812	2001029382

Confidential

813	2001029659
814	2001029660
815	2001030389
816	2001030390
817	2001030391
818	2001030392
819	2001030394
820	2001030395
821	2001030396
822	2001030490
823	2001030491
824	2001031675
825	2001031999
826	2001032000
827	2001032001
828	2001032002
829	2001032006
830	2001032011
831	2001032012
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Confidential

842	2001032236
843	2001032237
844	2001032285
845	2001032286
846	2001032287
847	2001032343
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850	2001032360
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854	2001033675
855	2001033676
856	2001033677
857	2001041188
858	2001050456
859	2001050467
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861	2001053180
862	2001053183
863	2001053184
864	2001053186
865	2001053189
866	2001053190
867	2001053191
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869	2001053199
870	2001054034

Confidential

871	2001054038
872	2001054039
873	2001054044
874	2001070759
875	2001074992
876	2001074993
877	2001074994
878	2001074995
879	2001074996
880	2001074997
881	2001074998
882	2001074999
883	2001075000
884	2001075001
885	2001075002
886	2001075003
887	2001075004
888	2001075005
889	2001075006
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892	2001075009
893	2001075830
894	2001075847
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896	2001075850
897	2001075851
898	2001075853
899	2001075855

Confidential

900	2001075856
901	2001075857
902	2001075858
903	2001075859
904	2001075861
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906	2001075869
907	2001075871
908	2001087807
909	2001087808
910	2001087809
911	2001087810
912	2001087811
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915	2001087814
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919	2001087818
920	2001087819
921	2001087820
922	2001087821
923	2001087822
924	2001087823
925	2001088658
926	2001088659
927	2001088977
928	2001088979

Confidential

929	2002010434
930	2002010435
931	2002010436
932	2002010437
933	2002011084
934	2002011085
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954	2002016531
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956	2002016533
957	2002016534

Confidential

958	2002016535
959	2002016536
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961	2002016539
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979	2002016557
980	2002016558
981	2002016559
982	2002016560
983	2002016591
984	2002017016
985	2002017017
986	2002017018

Confidential

987	2002017019
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1008	2002022482
1009	2002022483
1010	2002022484
1011	2002022485
1012	2002022486
1013	2002023358
1014	2002023804
1015	2002023805

Confidential

1016	2002023806
1017	2002023807
1018	2002023808
1019	2002023809
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1021	2002023811
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1034	2002025027
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1037	2002030766
1038	2002030767
1039	2002030768
1040	2002030769
1041	2002030770
1042	2002030771
1043	2002030772
1044	2002030773

Confidential

1045	2002030774
1046	2002030775
1047	2002030776
1048	2002030777
1049	2002030778
1050	2002030779
1051	2002030780
1052	2002030781
1053	2002030782
1054	2002030783
1055	2002030784
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1065	2002052109
1066	2002052110
1067	2002052111
1068	2002052112
1069	2002052113
1070	2002052114
1071	2002052115
1072	2002052116
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Confidential

1074	2002052118
1075	2002052119
1076	2002052120
1077	2002052121
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1080	2002052124
1081	2002052125
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1087	2002055775
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1089	2002055777
1090	2002055779
1091	2002055780
1092	2002055782
1093	2002055783
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1096	2002055798
1097	2002055799
1098	2002055801
1099	2002055803
1100	2002055805
1101	2002059437
1102	2002059438

Confidential

1103	2002059439
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1105	2002059441
1106	2002059442
1107	2002059443
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1109	2002059445
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1123	2002067153
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1125	2002067155
1126	2002067156
1127	2002067157
1128	2002067158
1129	2002067159
1130	2002067160
1131	2002067161

Confidential

1132	2002067162
1133	2002067163
1134	2002067164
1135	2002067165
1136	2002067166
1137	2002072012
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1139	2002073929
1140	2002074281
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1159	2002085213
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Confidential

1161	2002085215
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1163	2002085217
1164	2002085218
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Confidential

1190	2002085244
1191	2002085245
1192	2002087474
1193	2002087481
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1211	2003012888
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1215	2003012892
1216	2003012893
1217	2003012894
1218	2003012895

Confidential

1219	2003012896
1220	2003012897
1221	2003018544
1222	2003018545
1223	2003018546
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1246	2003034431
1247	2003034432

Confidential

1248	2003034433
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1269	2003035278
1270	2003035279
1271	2003035280
1272	2003035282
1273	2003035283
1274	2003035285
1275	2003035286
1276	2003035287

Confidential

1277	2003035294
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1279	2003051149
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1296	2003051166
1297	2003051167
1298	2003051168
1299	2003051456
1300	2003051457
1301	2003051462
1302	2003051466
1303	2003051470
1304	2003051471
1305	2003051472

Confidential

1306	2003051475
1307	2003051476
1308	2003051480
1309	2003066875
1310	2003066878
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1324	2004002981
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1326	2004002983
1327	2004002984
1328	2004002986

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